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August 21, 2007

Ref. 4471-25594

Hon. James H. Welsh Commissioner of Conservation Office of Conservation P. O. Box 94275 Baton Rouge, LA 70804

Re:

Supplement to Application for Public Hearing for Authority to Commingle Gas and Liquid Hydrocarbons Rabbit Island Commingling Facility No. 1 St. Mary and Iberia Parishes, Louisiana

Dear Commissioner Welsh:

Energy XXI Gulf Coast, Inc. requests to supplement its application concerning the calling of a public hearing for authority to commingle gas and liquid hydrocarbons in the Rabbit Island Commingling Facility No. 1 (952330) by the addition of State Lease No. 19022 to those properties listed in its application of January 4, 2007. In addition, enclosed please find an amended list of commingled properties and supplemented interested party list. It is my understanding that you have previously received an amended diagrammatic sketch and process flow explanation. We also included in our original application an equity statement, the procedures used for calibration/proving of meters and the requisite hearing fee of \$755.

Hon. James H. Welsh Commissioner of Conservation August 21, 2007 Page 2

Please let us know as soon as possible if any thing further is needed before this matter can be placed on a hearing docket. Thank you for your assistance.

Very truly yours,

Gregory G/Dun

GGD:rb Enclosure

Cc: Ms. Amy McFerrin

Mr. Richard D. Hudson District Manager

Office of Conservation

Mr. Scott Hoffman

All Interested Parties, Interested Owners,

Represented Parties

# List of Commingled Properties Rabbit Island Commingling Facility No. 1 (952330) Rabbit Island Field St. Mary Parish and Iberia Parish, Louisiana

# **Leases:**

SL 340 Rabbit Island DA (LUW 305617) SL 19022 (LUW 305791)

# Wells:

- SL 340 Rabbit Island DA No. 001 Well (SN 230555), Iberia Parish
- SL 340 Rabbit Island DA No. 003 Well (SN 231392), Iberia Parish
- SL 340 Rabbit Island DA No. 009 Well (SN 220809), Iberia Parish
- SL 340 Rabbit Island DA No. 017 Well (SN 232376), Iberia Parish
- SL 340 Rabbit Island DA No. 215 Well (SN 218660), St. Mary Parish
- SL 340 Rabbit Island DA No. 219 Well (SN 232528), Iberia Parish
- SL 19022 No. 1 Well (SN 234069), Iberia Parish

CK. att.



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January 4, 2007

2976-24088

Honorable James H. Welsh Commissioner of Conservation Office of Conservation P.O. Box 94275 Baton Rouge, LA 70804-4275

Re:

Application for Public Hearing for Authority to Commingle Gas and Liquid Hydrocarbons

Rabbit Island Commingling Facility No. 1 (952330)

Rabbit Island Field

St. Mary Parish and Iberia Parish, Louisiana

Dear Mr. Commissioner:

Application is hereby made on behalf of Energy XXI Gulf Coast, Inc. for the calling of a public hearing, after legal notice, to consider evidence relative to the issuance of an order approving commingling in the Rabbit Island Commingling Facility No. 1 (952330) of gas and liquid hydrocarbons produced from the commingled properties/wells listed herein located in the Rabbit Island Field in St. Mary and Iberia Parishes, Louisiana. Energy XXI Gulf Coast, Inc. requests that it be authorized to commingle and allocate production based on monthly well test as is currently authorized in this commingling facility and otherwise in compliance with the provisions of Statewide Order No. 29-D-1.

This application requests the addition of several new wells and SL 340 Rabbit Island DA (LUW 305617) as shown on the attached list to the leases, wells, and units previously approved for commingling in the Rabbit Island Commingling Facility No. 1 (952330).

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Honorable James H. Welsh January 4, 2007 Page 2

Energy XXI Gulf Coast, Inc.'s predecessor, Castex Energy, Inc. previously requested and obtained ninety (90) day emergency commingling authority which authority was extended for another 90 days effective January 3, 2007. Castex Energy, Inc. also sent a check for \$252.00 to cover the processing fees in the event 100% approval was obtained. Despite diligent effort, due to the large number of Interested Parties, 100% approval has proved to be impossible at this time.

Energy XXI Gulf Coast, Inc. therefore encloses a check for \$503.00 to cover the difference between the previous amount sent and the \$755.00 hearing fee in this matter.

Enclosed herewith please find the following:

- 1. Diagrammatic sketch of the mechanical installation and procedure to be used.
- 2. Detailed explanation of the plan and method of allocation of gas and liquid hydrocarbons.
- 3. List of interested parties.
- 4. Statement of the applicant regarding accuracy and equity regarding the use of well tests for allocation of production in the manner proposed.
- 5. A check in the amount of \$503.00 to cover the additional cost required for the calling of a public hearing in this matter.

We would appreciate you putting this matter on the next available docket.

Very truly yours

1/1/19/

GGD:rb Enclosures

Cc: Ms. Amy McFerrin

Mr. Richard D. Hudson District Manager Office of Conservation

Interested Owners, Represented Parties and Interested Parties

# ENERGY XXI GULF COAST, INC. (E173) COMMINGLING AUTHORITY RABBIT ISLAND COMMINGLING FACILITY #1 (952330) RABBIT ISLAND FIELD IBERIA PARISH, LOUISIANA

Energy XXI Gulf Coast, Inc. will perform a minimum of monthly calibration checks on oil meters and quarterly calibration checks on gas meters as required by DNR regulations.

# ENERGY XXI GULF COAST, INC. (E173) COMMINGLING AUTHORITY RABBIT ISLAND COMMINGLING FACILITY #1 (952330) RABBIT ISLAND FIELD SAINT MARY/IBERIA PARISH, LOUISIANA

It is the opinion of Energy XXI Gulf Coast, Inc. that the commingling of gas and liquid hydrocarbons and the use of metering for production allocation as proposed under this application to the State of Louisiana, Office of Conservation, will provide reasonable accurate measurement, will not create inequities, and the owner of any interes will have the opportunity to recover his just and equitable share of production.

Amy L. McFerrin

Title Sr. Regulatory Analyst

Date <u>December 13, 2006</u>

ENERGY XXI RABBIT ISLAND FIELD S/L 340 RABBIT ISLAND, S/L 340 RABBIT ISLAND DA, & S/L 19022 RABBIT ISLAND.

# **COMMINGLING FACILITY**

#### **EXPLANATION OF FLOW**

The Rabbit island commingling facilities consist of several well sites flowing to 3 platforms ("A" platform, "B" platform, & "D" platform) operating at various pressures, producing into high and low pressure gathering systems that are ultimately commingled together at the central Commingling Facility ("A" platform) for final sales of gas and liquid hydrocarbons and the disposal of produced water. The production stream of each individual well is rotated into a three-phase test separator for a 24 hr. period. All well production streams are constantly in the rotation cycle for measurement purposes. Any well that is not in the test system is commingled with in the various gathering systems for processing.

### **Allocation of Production**

The total measured master gas sales shall be allocated to the S/L 340 Rabbit Island, S/L 340 Rabbit Island DA, and the S/L 19022 Rabbit Island by the latest test data recovered by performing well tests on all of the individual wells in these leases. All custody transfer meters and allocation meters are calibrated on a monthly base.

The total measured oil sold through the L.A.C.T. shall be allocated to the S/L 340 Rabbit Island, S/L 340 Rabbit Island DA, and the S/L 19022 Rabbit Island by the latest test data recovered by performing well tests on all of the individual wells in these leases. The custody transfer L.A.C.T. Unit and all of the allocation turbine meters are calibrated on a monthly base.

#### S/L 340 RABBIT ISLAND "D" PLATFORM FACILITY

# 4-log Production Manifold

All production streams first flow into a 4-log production manifold (1 log for High PSI, 1 log for Low PSI, 1 log for Test, & 1 log for Flare.), with this manifold the flow can be rotated in and out of the test system as needed for allocation measurement purpose.

### High-Pressure System

The high-pressure system (Operating Pressure 950 PSI) consists of a two-phase separator, where the gas is sent to the central Commingling Facility located at "A" platform via the high pressure pipeline, where the gas is measured just for monitoring reasons then is commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales. The fluid from the high-pressure separator is dumped either in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 3" pipeline for separation and oil processing, water is disposed into the saltwater disposal system located at the "A" platform facility, or can be dumped in to the fluid transfer pipeline down stream of the transfer pump and use the energy from the high pressure separator to transfer the fluid to "A" platform via 3" pipeline.

# Low Pressure System

The Low-pressure system consists of a two-phase separator, where the gas can be sent either to the "B" platform low pressure system (Operating Pressure 25 PSI) for compression and then sent on to "A" platform and is commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales. Or that same stream can be sent to "A" platform low pressure system (Operating Pressure 110 PSI) for compression then commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales. The fluid from the low-pressure separator is dumped in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 3" pipeline for separation and oil processing, water is disposed into the saltwater disposal system located at the "A" platform facility.

#### Flare System

This system is set up to unload a well that has load up with fluid, by rotating the well in to this system to relieve the back pressure off of the tubing and try to get the well flowing again back in to it's normal operating system. Any gas that is flared though this system is measured and allocated back to the appropriate well and list as gas flared. Also all of the fluid that is unload from the well is meter by a total fluid turbine meter and samples cut are taken during the time that the system is in use and the appropriate percentage of liquid hydrocarbons & water is allocated back to the appropriate well that is being flared. The total fluid is dumped in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 3" pipeline for separation and oil processing, water is disposed into the saltwater disposal system located at the "A" platform facility.

# High/Low Pressure Test System

This system is set up to test for allocation either high-pressure (Operating Pressure 950 PSI) or low-pressure wells flowing to "D" platform. The system consists of a two-phase high-pressure and a 3 phase low-pressure separators with gas meters for allocation that are calibrated monthly, liquid hydrocarbons turbine meter, & water turbine meter. The turbine meters are also calibrated monthly with a swap out system.

When a high pressure well is in the test system, the well stream is put in to the 2 phase high-pressure separator and the gas is measured for allocation then it is sent to the central Commingling Facility located at "A" platform via the high pressure pipeline, where the gas is measured just for monitoring reasons then is commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

Total fluid is then dumped from the high-pressure separator through a turbine meter and is measured for monitoring reasons in to the low-pressure separator any gas that is carried over with the liquid is measured for allocation then can be sent either to the "B" platform low pressure system (Operating Pressure 25 PSI) for compression and then sent on to "A" platform and is commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales. Or that same stream can be sent to "A" platform low pressure system (Operating Pressure 110 PSI) for compression then commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

The liquid hydrocarbons are dumped from the separator through a turbine meter for allocation then in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 3" pipeline for separation and oil processing.

The water is dumped from the separator through a turbine meter for allocation then in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 3" pipeline for separation and oil processing.

### S/L 340 RABBIT ISLAND "B" PLATFORM FACILITY

This platform has three different lease properties (S/L 340 Rabbit Island, S/L 340 Rabbit Island DA, & S/L 19022 Rabbit Island) and has various operating pressures.

# 4-log Production Manifold

All production streams first flow into a 4-log production manifold (1 log for High PSI, 1 log for Low PSI, 1 log for Test, & 1 log for Flare.), with this manifold the flow can be rotated in and out of the test system as needed for allocation measurement purpose.

# High-Pressure Bulk System

The high-pressure system (Operating Pressure 950 PSI) consists of a three-phase separator, where the gas is measured just for flow monitoring reasons the gas also passes though a "B" to "A" total gas meter for flow monitoring reasons then on to the central Commingling Facility located at "A" platform via the high pressure pipeline, where the gas is commingled in to the **main high-pressured stream** that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

The liquid hydrocarbons from the high-pressure separator is dumped though a turbine meter just for flow monitoring reasons then in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing.

The Water from the high-pressure separator is dumped though a turbine meter just for flow monitoring reasons then in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing.

#### Low Pressure Bulk System

The Low-pressure bulk system (Operating Pressure 4 to 15 PSI) consists of a two-phase separator, where the gas is sent to the compressor then after compression the gas passes though a "B" to "A" total gas meter for flow monitoring reasons, then on to "A" platform and is commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

The total fluid if the separator has enough energy to dump the fluid in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing. But if it does not have enough energy to dump and maintain a safe operating level then the separator has an transfer pump that will come on to maintain a safe operating level in the separator, the fluid is pumped out of the separator and in to the "A" platform 4" pipeline down stream of the main total fluid transfer pump.

### Flare System

This system is set up to monitor compressor suction pressure to prevent low pressure wells from loading up If the compressor goes off line for anytime and the pressure on the low pressure bulk

system is increased to 15 PSI the flare system will open and maintain the operating pressure of 15 PSI in till the compressor can be put back on line or wells are shut-in by operator. All gas is allocated for the time that was flared by the latest test data for wells in the low-pressure bulk system.

This system is also used to unload a well that has load up with fluid, by rotating the well in to this system to relieve the back pressure off of the tubing and try to get the well flowing again back in to it's normal operating system. Any gas that is flared though this system is measured and allocated back to the appropriate well and list as gas flared. Also all of the fluid that is unload from the well is meter by a total fluid turbine meter and samples cut are taken during the time that the system is in use and the appropriate percentage of liquid hydrocarbons & water is allocated back to the appropriate well that is being flared. The total fluid is dumped in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing, water is disposed into the saltwater disposal system located at the "A" platform facility.

# High/Low Pressure Test System

This system is set up to test for allocation either high-pressure (Operating Pressure 950 PSI) or low-pressure wells flowing to "B" platform. The system consists of a two-phase high-pressure and a 3 phase low-pressure separators with gas meters for allocation that are calibrated monthly, liquid hydrocarbons turbine meter, & water turbine meter. The turbine meters are also calibrated monthly with a swap out system.

When a high pressure well is in the test system, the well stream is put in to the 2 phase high-pressure separator and the gas is measured for allocation then it commingled in to the high-pressure pipe line down stream of the compressor and pass through the "B" to "A" total gas meter for flow monitoring reasons then sent on to "A" platform and is commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

Total fluid is then dumped from the high-pressure separator through a turbine meter and is measured for monitoring reasons in to the low-pressure separator any gas that is carried over with the liquid is measured for allocation then sent to the "B" low pressure system (Operating Pressure 15 PSI) for compression and then sent on to "A" platform and is commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

The liquid hydrocarbons are dumped from the low-pressure separator through a turbine meter for allocation then in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing.

The water is dumped from the low-pressure separator through a turbine meter for allocation then in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing.

Low-pressure well stream put in for testing will by-pass the high-pressure separator and go in to the low-pressure separator for testing, the gas is measured for allocation then sent to the "B" low pressure system (Operating Pressure 15 PSI) for compression and then sent on to "A" platform and is commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

The liquid hydrocarbons are dumped from the low-pressure separator through a turbine meter for allocation then in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing.

The water is dumped from the low-pressure separator through a turbine meter for allocation then in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing.

# 2 Phase Suction Scrubber

Any low-pressure gas sent to "B" platform low-pressure system for compression passes through this unit to catch any notable fluid before compression. The fluid is dumped from the scrubber in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing.

#### 4-Stage Compressor

This unit runs with a suction pressure of 4 lbs. to 15 lbs. and a discharge of 950 lbs. any low pressure gas sent to "B" platform low pressure system for compression passes through this unit and then sent on to "A" platform and is commingled in to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales. The unit has 4 scrubbers 1 for each stage, the scrubbers all dump a notable amount in to the main commingling fluid line that goes to the total fluid transfer tank to be pumped to "A" platform via 4" pipeline for separation and oil processing.

Production Manifold

This manifold is set up to rotate wells in and out of the test separator for allocation of production. The manifold has wells flow to it from both leases the S/L 340 Rabbit Island DA & the S/L 340 Rabbit Island it is located on a small platform and has 2-8" pipelines going to "A" Platform This manifold has 2 logs; 1 for the Test separator and 1 goes to the 48" 3 phase production separator located on "A" platform via the 8" pipeline. The Production Manifold is operating at low pressure.

# 3 Phase Test Separator

The wells are tested for allocation of production; gas is measured then tied back into the 8" pipeline to "A" platform for processing.

The liquid hydrocarbons are dumped from the separator through a turbine meter then in to the 8" liquid pipeline to "A" platform for processing.

The Water is dumped from the separator through a turbine meter then in to the 8" liquid pipeline to "A" platform for processing.

### S/L 340 RABBIT ISLAND "A" PLATFORM CENTRAL COMMINGLING FACILITY

# 48" 3 Phase Production Separator

This separator is set up to handle the production from the production manifold in the field. The gas is measured just for monitoring reasons then is sent to the compressors for compression then is sent to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales. It is also set up so if the compressor goes down the gas can build up to line pressure and open a check valve and continue to flow to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

The liquid hydrocarbons are dumped from the separator through a turbine meter and measured just for monitoring reasons then in to the main heater treater line for processing.

The Water is dumped from the separator through a turbine meter and measured just for monitoring reasons then in to the main water line going into the saltwater disposal system.

# 36" 3 Phase Production Separator (OUT OF SERVICE)

This separator is (OUT OF SERVICE)

The gas is measured just for monitoring reasons then is sent to the compressors for compression then is sent to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales. It is also set up so if the compressor goes down the gas can build up to line pressure and open a check valve and continue to flow to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

The liquid hydrocarbons are dumped from the separator through a turbine meter and measured just for monitoring reasons then in to the main heater treater line for processing.

The Water is dumped from the separator through a turbine meter and measured just for monitoring reasons then in to the main water line going into the saltwater disposal system.

# "D" To "A" Low PSI 2 Phase Scrubber

Low-pressure gas from "D" platform is measured just for monitoring reasons then the gas goes through the 2 phase scrubber and is tie in to the compressor suction line for compression then is sent to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

The notable fluid is dumped in to the main heater treater line for processing.

# 3 Phase Separator (OUT OF SERVICE)

This 3 phase separator (OUT OF SERVICE) with this set up the well could flow to the compressor and if the flow rate fill off and the well loaded up and needed to be unloaded to atmosphere it could be sent to the flare system.

The gas from this separator is measured for allocation of production then the gas is sent to the compressors for compression then is sent to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales. It is also set up so if the compressor goes down the gas can build up to line pressure and open a check valve and

continue to flow to the main high-pressured stream that goes through an additional two-phase scrubber, then for dehydration, then sent to master sales.

The liquid hydrocarbons are dumped from the separator through a turbine meter and measured for allocation of production then commingling in to the main heater treater line for processing.

The Water is dumped from the separator through a turbine meter and measured for allocation of production then commingling in to the main water line going into the saltwater disposal system.

### 2 Phase Suction Scrubber

Any low-pressure gas sent to "A" platform low-pressure system for compression passes through this unit to catch any notable fluid before compression. The fluid is dumped from the scrubber in to the main heater treater line for processing

# 2 Phase Dehy Scrubber

All gas that is produced is sent into the main high-pressure stream

This gas passes through the scrubber before going into the dehydration unit

Any notable fluid from the scrubber is dumped in to the main heater treater line for processing

# Heater Treater

Processes the total fluid from all three platforms "A", "B", & "D"

After treatment of the liquid hydrocarbons they are dumped from the treater through a turbine meter and measured just for monitoring reasons then in to the stock tanks for storage.

The Water is dumped from the treater through a turbine meter and measured just for monitoring reasons then in to the main water line going into the saltwater disposal system.

#### Gun Barrel

This is the start of the saltwater disposal system

All water produced sent into this system for disposal, any liquid hydrocarbons that are carried over in to the gun barrel they flow in to the pump separator and are pumped back into the heater treater line for processing.

The Saltwater is then flowed over in to the saltwater disposal pump suction tank before pumped through a turbine meter and measured for allocation of water injected into SWD well.

#### Oil Stock Tanks

All oil that has been produced is stored in the stock tank until a volume has been accumulated (around 100 Barrels) for sales through the L.A.C.T. unit

# The L.A.C.T. Unit

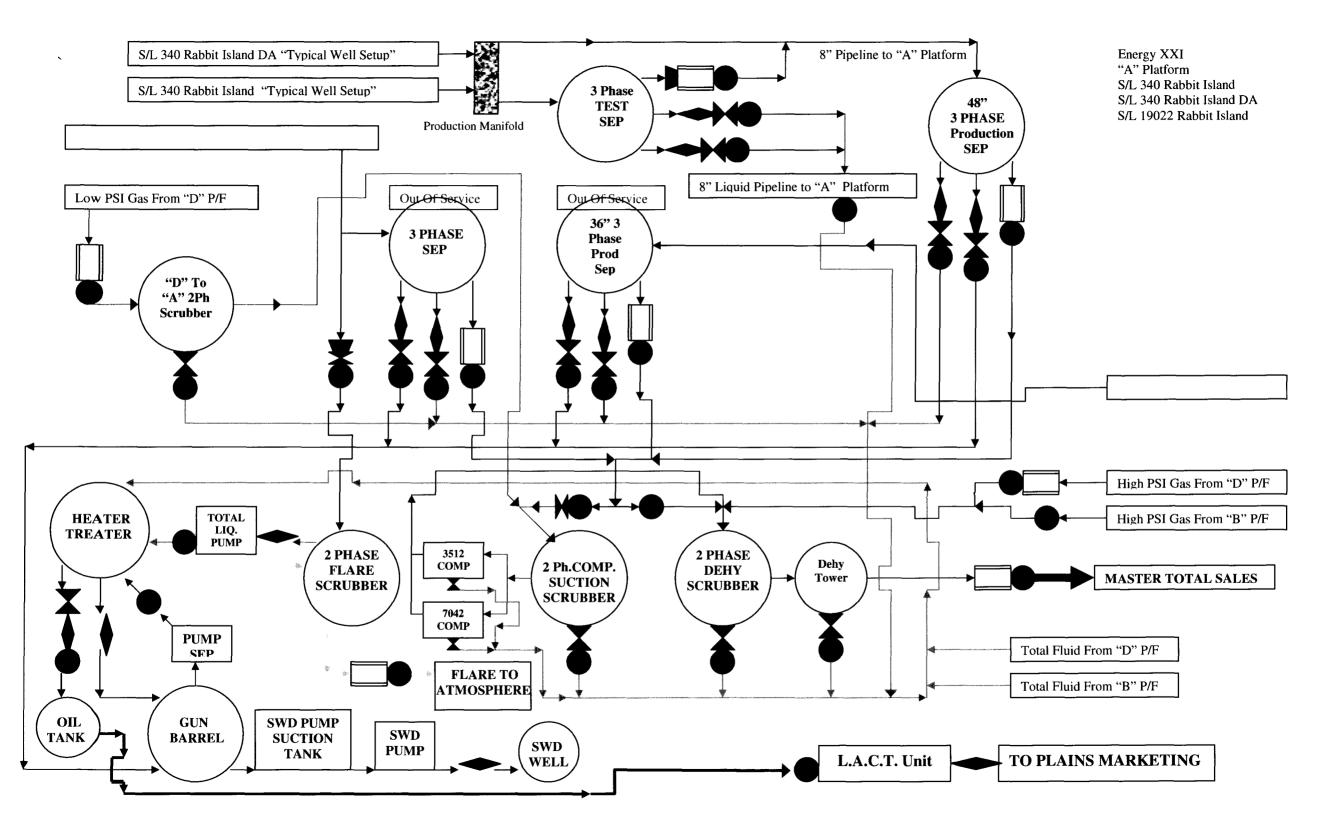
Is the custody transfer and final sales point of oil produced.

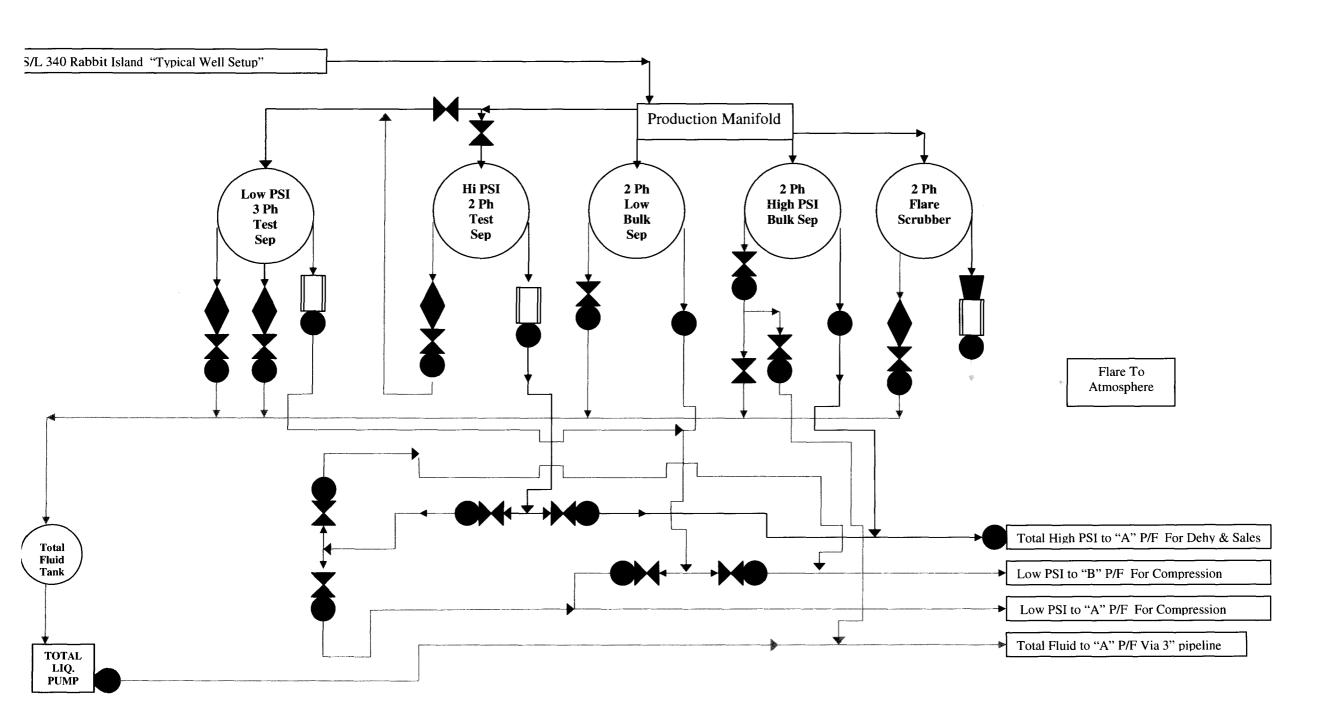
The unit is proven on a monthly bases (on location)

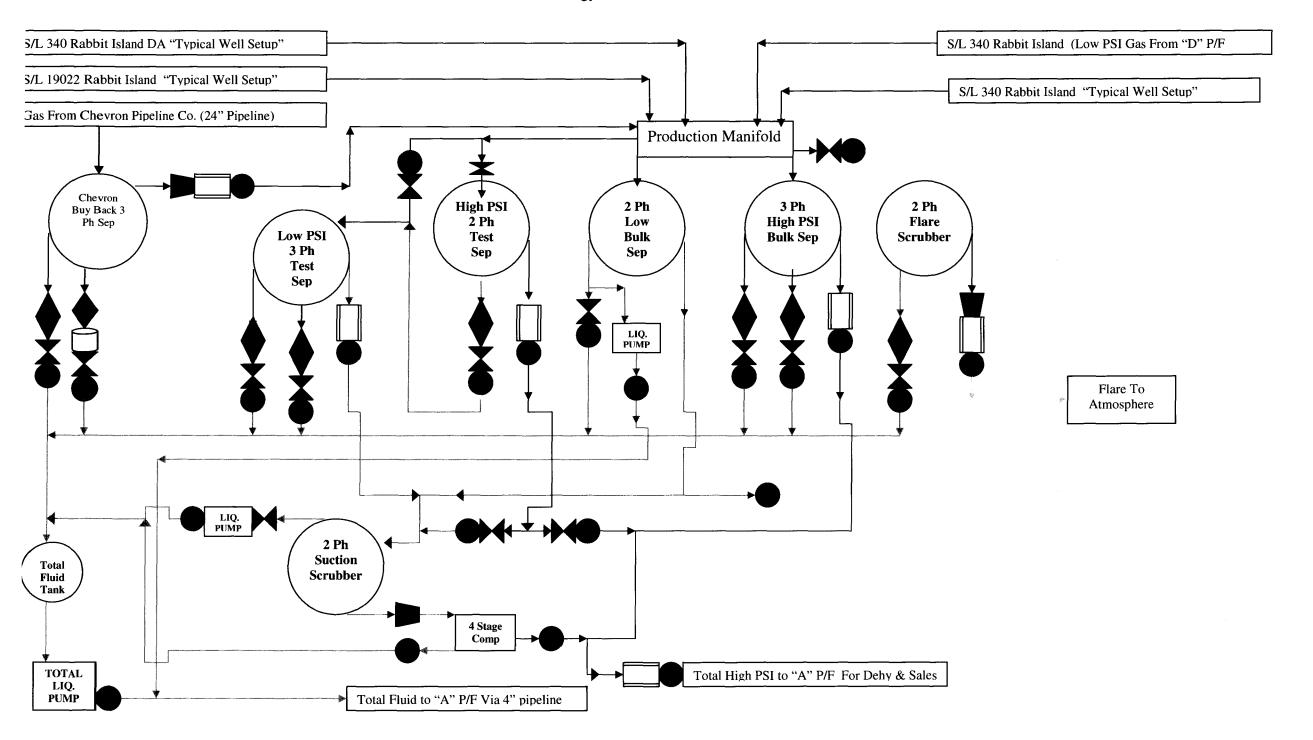
# Master Gas Sales

Is the custody transfer and final sales point of gas produced.

The meter is calibrated on a monthly bases (on location)







RABBIT ISLAND (7576) FIELD: PARISH: ST. MARY PARISH (051) LEGEND: TOTAL FLOW (GAS, OIL, & WATER) 1. LOW PSI GAS 2. 3. HIGH PRESSURE GAS 4. INTERMEDIATE GAS (DUAL PRESSURE- High and/or Low) 5. **FLASH GAS** TOTAL FLUIDS (OIL & WATER) 6. 7. OIL 8. WATER 9. **DUMP VALVE** BALL VALVE 10. 11. TURBINE METER 12. **CHECK VALVE** GAS METER 13. 14. COMPISITE SAMPLER

BACK PRESSURE VALVE

**ENERGY XXI** 

15.